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| Montecarlo Minimization Graphs |  |
| **Assignment 1** |  |
|  | 07/08/2023CSC2002S |
|  | Nkhumeleni BestNKHBES001 |

My PC benchmark

|  |  |  |  |
| --- | --- | --- | --- |
| Number of rows | Number of columns | Search density | Time taken |
| 10 | 10 | 0,1 | 1 |
| 50 | 50 | 0,2 | 1 |
| 100 | 100 | 0,3 | 1 |
| 200 | 200 | 0,4 | 3 |
| 500 | 500 | 0,5 | 12 |
| 1000 | 1000 | 0,6 | 57 |
| 2000 | 2000 | 0,7 | 335 |
| 5000 | 5000 | 0,8 | 2538 |
| 7500 | 7500 | 0,9 | 6513 |
| 10000 | 10000 | 1 | 13857 |

NightMare benchmark

|  |  |  |  |
| --- | --- | --- | --- |
| Number of rows | Number of columns | Search density | Time taken |
| 10 | 10 | 0,1 | 4 |
| 50 | 50 | 0,2 | 5 |
| 100 | 100 | 0,3 | 6 |
| 200 | 200 | 0,4 | 11 |
| 500 | 500 | 0,5 | 34 |
| 1000 | 1000 | 0,6 | 119 |
| 2000 | 2000 | 0,7 | 624 |
| 5000 | 5000 | 0,8 | 5172 |
| 7500 | 7500 | 0,9 | 13588 |
| 10000 | 10000 | 1 | 32749 |

Nightmare parallel

|  |  |  |  |
| --- | --- | --- | --- |
| Number of rows | Number of collumns | Search density | Time taken |
| 10 | 10 | 0,1 | 11 |
| 50 | 50 | 0,2 | 12 |
| 100 | 100 | 0,3 | 14 |
| 200 | 200 | 0,4 | 16 |
| 500 | 500 | 0,5 | 35 |
| 1000 | 1000 | 0,6 | 146 |
| 2000 | 2000 | 0,7 | 394 |
| 5000 | 5000 | 0,8 | 2193 |
| 7500 | 7500 | 0,9 | 4397 |
| 10000 | 10000 | 1 | 8091 |

My pc parallel

|  |  |  |  |
| --- | --- | --- | --- |
| Number of rows | Number of collumns | Search density | Time taken |
| 10 | 10 | 0,1 | 3 |
| 50 | 50 | 0,2 | 3 |
| 100 | 100 | 0,3 | 5 |
| 200 | 200 | 0,4 | 7 |
| 500 | 500 | 0,5 | 18 |
| 1000 | 1000 | 0,6 | 77 |
| 2000 | 2000 | 0,7 | 219 |
| 5000 | 5000 | 0,8 | 1227 |
| 7500 | 7500 | 0,9 | 2473 |
| 10000 | 10000 | 1 | 4736 |